IN THE CLAIMS

Please enter the below claim amendments.

1. (currently amended) A method for limiting flow disturbance in an energy efficient manner comprising ~~the steps~~:

providing a flow merging device;

splitting a first inlet flow at the flow merging device into a first branch and a second branch;

splitting a second inlet flow at the flow merging device into a first branch and a second branch; and

merging the first branches of the first and second inlet flows together;

wherein the flows in each of the first branches are substantially parallel at the site of merging.

2. (currently amended) The method according to Claim 1, further comprising ~~the step of~~ merging the second branches of the first and second inlet flows together, wherein the flows in each of the second branches are substantially parallel at the site of merging.

3. (original) The method according to Claim 2, wherein the flow rates in the merged first branches and the merged second branches are substantially equal.

4. (original) The method according to Claim 1, wherein the first inlet flow is a flow of blood.

5. (currently amended) The method according to Claim 4, further comprising ~~the step of~~ directing the flow of the merged first branches to a lung.

6. (currently amended) The method according to Claim 4, further comprising ~~the step of~~ directing the flow of the merged second branches to a lung.

7. (original) The method according to Claim 1, wherein the flow merging device comprises tissue-engineered material.

8. (currently amended) A device for merging at least two inlet flows, and thereafter directing portions of each inlet flow to at least two outlets, the device comprising a merging **device to merge** ~~means for merging~~ the at least two inlet flows such that portions of each inlet flow are merged only when portions of the flows are approximately parallel one another, traveling in the same direction.

9. (original) The device of Claim 8, wherein the at least two outlets have substantially equal flow rates therethrough.

10. (original) The device of Claim 8, wherein the device is for use where at least on of the inlet flows is a flow of blood.

11. (original) The device of Claim 10, wherein at least one of the outlets directs flow to a lung.

12. (original) The device of Claim 8, wherein the device comprises tissue-engineered material.

13. (currently amended) A method for limiting venous blood flow disturbance from the systemic to the pulmonary circulation in an energy efficient manner comprising ~~the steps~~:

providing a flow merging device;

splitting the IVC flow at the flow merging device into a first branch and a second branch;

splitting the SVC flow at the flow merging device into a first branch and a second branch; and

merging the first branches of the IVC and SVC flows together;

wherein the flows in each of the first branches are substantially parallel at the site of merging.

14. (currently amended) The method according to Claim 13, further comprising ~~the step of~~ merging the second branches of the IVC and SVC flows together, wherein the flows in each of the second branches are substantially parallel at the site of merging.

15. (original) The method according to Claim 14, wherein the flow rates in the merged first branches and the merged second branches are substantially equal.

16. (currently amended) The method according to Claim 14, further comprising ~~the step of~~ directing the flow of the merged first branches to a lung.

17. (currently amended) The method according to Claim 14, further comprising ~~the step of~~ directing the flow of the merged second branches to a lung.

18. (currently amended) The method according to Claim ~~12~~ 13, wherein the flow merging device comprises tissue-engineered material.

19. (currently amended) A method of performing a surgical procedure on the heart of a patient comprising ~~the steps of~~:

providing a flow merging device;

splitting the IVC flow at the flow merging device into a first branch and a second branch;

splitting the SVC flow at the flow merging device into a first branch and a second branch; and

merging the first branches of the IVC and SVC flows together;

wherein the flows in each of the first branches are substantially parallel at the site of merging.

20. (original) The method according to Claim 19, wherein the flow merging device comprises:

an IVC inlet at which the IVC is connected to the flow merging device;

a SVC inlet at which the SVC is connected to the flow merging device;

a first outlet at which the first branches of the IVC and SVC flows combine; and

a second outlet at which the second branches of the IVC and SVC flows combine.

21. (original) A device for combining the flow of the IVC and the SVC, and thereafter directing the combined flow to the lungs, the device comprising:

an IVC inlet at which the IVC is connected, the IVC inlet splitting a portion of the IVC flow between a first branch and a second branch;

a SVC inlet at which the SVC is connected, the SVC inlet splitting a portion of the SVC flow between a first branch and a second branch;

a first lung outlet at which the first branches of the IVC and SVC flows combine; and

a second lung outlet at which the second branches of the IVC and SVC flows combine,

wherein the flows in each of the first branches and second branches are substantially parallel at the sites of combining the flows.

22. (currently amended) A method of using ~~the~~ **a** device ~~of Claim 21~~ **for combining the flow of the IVC and the SVC, and thereafter directing the combined flow to the lungs, the method comprising:**

providing a device, the device comprising:

an IVC inlet at which the IVC is connected, the IVC inlet splitting a portion of the IVC flow between a first branch and a second branch;

a SVC inlet at which the SVC is connected, the SVC inlet splitting a portion of the SVC flow between a first branch and a second branch;

a first lung outlet at which the first branches of the IVC and SVC flows combine; and

a second lung outlet at which the second branches of the IVC and SVC flows combine,

wherein the flows in each of the first branches and second branches are substantially parallel at the sites of combining the flows; and

~~wherein the use is~~ **using the device** ex vivo.